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CITY OF NEW YORK JUNE 28, 1954 NUMBER 1671Ants of the Bimini Island Group, Bahamas,
British West Indies (Hymenoptera,
Formicidae)BY MARION R. SMITH¹

This article is a report on ants collected on the Bimini Island group by Mont A. Cazier and associates of the American Museum of Natural History over a period of several years. These collections were made while the members of the Department of Insects and Spiders were guests at the Lerner Marine Laboratory of the American Museum of Natural History, through the courtesy of Dr. C. M. Breder, Jr. So far as I am aware, no ants have been previously recorded for this group of islands. The study of the individuals was undertaken at the request of Dr. Cazier. I wish to express my appreciation to Dr. Cazier for his interest and aid in the work, and to W. L. Brown for kindly furnishing an opinion on the taxonomic status of several forms, as well as information on the location of certain types.

It is not the purpose of this paper to deal with the physiogeography, general fauna and flora, or other features of the Bimini Island group. Articles covering such subjects have been published by Cazier (1951, 1952), Howard (1950), Vaurie (1952), and Zahl (1952). Perhaps it should be stated, however, that the Bimini group is composed of three major islands, North, South, and East Bimini, long and narrow islands that together are arranged in the form of an equilateral triangle. The land is low, the highest point being about 30 feet above sea level. According to Cazier (1951): "These islands are the westernmost of the Bahama Islands, lying on the western edge of the Great Bahama Bank, approximately 60 air miles from Miami, Florida, and separated from the mainland by the Gulf Stream. During most of the year the prevailing winds

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blow from southeast to northwest, only occasionally the reverse, and it is possible that they influence the distribution of the insects in this area. The presence of the swift currents of the Gulf Stream between these islands and the mainland precludes in large part the possibility of interchange of faunas by means of 'rafts.' However, there is considerable commerce between the various islands and Florida, which may be instrumental in faunal interchange, especially of the wood-boring and semi-domestic insects."

Most of the ants studied were collected on South Bimini. Cazier (1951) states that South Bimini is more varied ecologically than East Bimini or the northeastern portion of North Bimini; the last two areas are uninhabited. Since no intensive collecting was done for ants alone, the number of forms recorded is perhaps far fewer than the total occurring on these three islands. Many specimens were collected by means of Berlese funnels. Although I have been unable to place specifically a number of forms, no new species have been definitely recognized in the lot. Table 1 shows 25 forms that have been determined specifically; of these 8 per cent are endemic to the Bahamas, 20 per cent are introduced forms, and 72 per cent are West Indian. Of the West Indian forms one-third are also found in Florida. The undetermined forms are not listed in the table. Introduced forms are listed only for the Bimini group.

FAMILY FORMICIDAE

Ponera trigona var. *opacior* Forel

Ponera trigona var. *opacior* FOREL, 1893, Trans. Ent. Soc. London, pt. 4, pp. 363-364 (worker, female, Island of St. Vincent; types presumably in the Museum of Natural History, Geneva, Switzerland).

This form occurs throughout the West Indies and on the American continent from Chile and Argentina to the southern two-thirds of the United States.

SPECIMENS EXAMINED: Twenty-three workers, two females, South Bimini, May-August (Cazier, Gertsch, and C. and P. Vaurie).

Odontomachus haematoda insularis var. *pallens* Wheeler

Odontomachus haematoda insularis var. *pallens* WHEELER, 1905, Bull. Amer. Mus. Nat. Hist., vol. 21, pp. 82-83 (worker, female, male, Andros and New Providence Islands, Bahamas; types in the Museum of Comparative Zoölogy, Cambridge, Massachusetts, and the American Museum of Natural History).

This form appears to have been recorded only from Cuba, Haiti, and the Bahamas. It may have a much wider distribution in the West Indies than present records indicate.

TABLE 1

SPECIES OF ANTS COLLECTED ON THE BIMINI ISLAND GROUP, WITH INDICATIONS OF THEIR DISTRIBUTION

Species	Endemic to Bahamas	Intro- duced	West Indies	Florida	Else- where
<i>Ponera trigona</i> var. <i>opacior</i> Forel			x	x	x
<i>Odontomachus haematoda insularis</i> var. <i>pallens</i> Wheeler			x		
<i>Pseudomyrmex pallida</i> F. Smith			x	x	x
<i>Pheidole flavens</i> Roger			x		
<i>Pheidole megacephala</i> (Fabricius)		x			
<i>Cardiocondyla emeryi</i> Forel		x			
<i>Crematogaster (Orthocrema) steinheili</i> Forel			x		
<i>Macromischa pastinifera</i> Emery			x		
<i>Wasmannia auropunctata</i> (Roger)			x	x	x
<i>Paracryptocerus (Cyathomymex) varians</i> (F. Smith)			x	x	x
<i>Strumigenys (Pyramica) gundlachi</i> (Roger)			x		x
<i>Smithistruma nigrescens</i> (Wheeler)			x		x
<i>Trachymyrmex jamaicensis</i> (André)			x		
<i>Dorymyrmex pyramicus</i> (Roger)			x	x	x
<i>Tapinoma litorale</i> Wheeler			x	x	
<i>Tapinoma melanocephalum</i> (Fabricius)		x			
<i>Brachymyrmex heeri</i> var. <i>obscurior</i> Forel			x		x
<i>Brachymyrmex minutus</i> Forel			x		
<i>Camponotus (Tanaemyrmex) bermudezi</i> Aguayo			x		
<i>Camponotus (Tanaemyrmex) lucayanus</i> Wheeler	x				
<i>Camponotus (Tanaemyrmex) ramulorum</i> Wheeler			x		
<i>Camponotus (Colobopsis) culmicola</i> Wheeler	x				
<i>Paratrechina (Paratrechina) longicornis</i> (Latreille)		x			
<i>Paratrechina (Nylanderia) bourbonica</i> (Forel)		x			
<i>Paratrechina (Nylanderia) guatemalensis</i> (Forel)			x		x

SPECIMENS EXAMINED: Twenty workers, one male, South Bimini, May–August (Cazier, Gertsch, and C. and P. Vaurie).

Pseudomyrmex pallida F. Smith

Pseudomyrma pallida F. SMITH, 1855, Trans. Ent. Soc. London, new ser., vol. 3, p. 160 [worker, east Florida, United States of America; types presumably in the British Museum (Natural History), London, England].

Pseudomyrma flavidula F. SMITH, 1858, Catalogue of hymenopterous insects in the . . . British Museum, pt. 6, p. 157 [worker, Santarem, Brazil; types presumably in the British Museum (Natural History), London, England].

The form formerly known as *flavidula* (with a dark spot on each side of the base of gaster of the worker and female) has recently been synonymized by Creighton (1950, p. 80) with *pallida*, which is without spots on the base of the gaster of the worker and female, it having been shown that the spots are highly variable in character. *Pseudomyrmex pallida* ranges from North Carolina and Florida west to California in the United States, south to Brazil, and throughout the West Indies.

SPECIMENS EXAMINED: Eight workers, one female, South Bimini, May and August (Cazier, Gertsch, and C. and P. Vaurie).

Pheidole flavens Roger

Pheidole flavens ROGER, 1863, Berliner Ent. Zeitschr., vol. 7, p. 198 (worker, soldier, female, Cuba; types presumably in the Zoological Museum of the University of Berlin, Berlin, Germany).

Wheeler (1913, p. 493) states: "The types of this species, according to Gundlach, were taken in Cogimar, near Havana. His collection contains two females, one soldier and two worker cotypes bearing the no. 289." So far as I am aware this form has been recorded only from Cuba and the Bahamas.

SPECIMENS EXAMINED: One hundred workers, 33 soldiers, seven females, six males, South Bimini, May, July, August (Cazier, Gertsch, and C. and P. Vaurie).

Pheidole megacephala (Fabricius)

Formica megacephala FABRICIUS, 1793, Entomologia systematica, vol. 2, p. 361 (soldier, Mauritius; existence or location of types not known).

Oecophthora pusilla HEER, 1852, Neujahrsbl. Naturf. Gesell. Zurich, vol. 54, pp. 16–22, pl. 1, figs. 1–4 (worker, soldier, female, male, island of Madeira; existence or location of types not known).

Myrmica ? laevigata F. SMITH, 1855, Trans. Ent. Soc. London, new ser., vol. 3, p. 130, pl. 9, figs. 7, 8 [worker, Battersea, England; types presumably in the British Museum (Natural History), London, England].

Pheidole janus F. SMITH, 1858, Catalogue of hymenopterous insects in the . . . British Museum, pt. 6, p. 175, pl. 9, figs. 13–17 [worker, soldier, Ceylon; types presumably in the British Museum (Natural History), London, England].

Pheidole megacephala is a tramp species which has become widely distributed throughout the world by commerce. It has been recorded from numerous tropical localities, in at least some of which it is undoubtedly native. Although widely distributed throughout the West Indies, it is my opinion that it has been introduced. This highly predaceous form infests houses, feeds on seeds, and attends honeydew-excreting insects.

SPECIMENS EXAMINED: Twenty-six workers, 11 soldiers, one male, South Bimini, May–July (Cazier, Gertsch, and C. and P. Vaurie); 51 workers, seven soldiers, North Bimini, June–August (Cazier, C. and P. Vaurie).

Cardiocondyla emeryi Forel

Cardiocondyla emeryi FOREL, 1881, Mitth. München Ent. Ver., vol. 5, p. 6 (worker, St. Thomas, Virgin Islands; types presumably in the Museum of Natural History, Geneva, Switzerland).

This form has been widely distributed by commerce. There are records from such diverse places as Africa, Madagascar, island of Madeira, Palestine, Syria, Guam, and Formosa. It has also been recorded from several localities in Florida. Although *C. emeryi* is widely distributed in the West Indies, it appears to have been introduced. Emery expressed the opinion that its original home is somewhere in the Asiatic region. Borgmeier (1937, pp. 129–134) has described and figured an ergatoid male, which occurs in addition to the regular male.

SPECIMENS EXAMINED: One worker, North Bimini, August (C. and P. Vaurie).

Crematogaster (Orthocrema) steinheili Forel

Crematogaster steinheili FOREL, 1881, Mitth. München Ent. Ver., vol. 5, p. 15 (worker, St. Thomas, Virgin Islands; types presumably in the Museum of Natural History, Geneva, Switzerland).

One of the most common and widely distributed of the few species of *Crematogaster* occurring in the West Indies. It is recorded from Haiti, St. Croix, Cuba, Puerto Rico, and other islands. The two-segmented antennal club, subparallel-sided petiole, and postpetiole without an impression or sulcus readily distinguish *steinheili* from forms belonging to the subgenus *Crematogaster*.

SPECIMENS EXAMINED: Two workers, two females, nine males, South Bimini, May–July (Cazier, Gertsch, Rindge, and C. and P. Vaurie).

Crematogaster (Crematogaster) species

These specimens, which I am unable to place specifically, may be *sanguinea* Roger or a very closely related form. *Crematogaster sanguinea*

was described from Cuban specimens collected by Gundlach near Cardenas (Wheeler, 1913, p. 489). Wheeler was of the opinion that his *lucayana* described from Andros and New Providence Islands, Bahamas, and subspecies *etiolata* from Andros Island were at best only subspecies of *sanguinea*.

SPECIMENS EXAMINED: One female, four males, South Bimini, June–August (Cazier and C. and P. Vaurie).

Solenopsis (Diplorhoptrum) species

Solenopsis (Diplorhoptrum) is represented by several forms, which I am unable to place specifically. For convenience, those that are represented by workers only have been designated as A, B, C. It is quite possible that one or more of them may be introduced or “tramp species.”

Solenopsis (Diplorhoptrum) species A

SPECIMENS EXAMINED: Thirty-six workers, South Bimini, April, June–August (Cazier, Mayr, and C. and P. Vaurie).

Solenopsis (Diplorhoptrum) species B

SPECIMENS EXAMINED: Eight workers, South Bimini, June, July (Cazier and C. and P. Vaurie).

Solenopsis (Diplorhoptrum) species C

SPECIMENS EXAMINED: Three workers, South Bimini, June (Cazier and C. and P. Vaurie).

Solenopsis (Diplorhoptrum) species

This category contains a number of females and one male which may be the sexual phases of one or more of the forms above.

SPECIMENS EXAMINED: Nine females, one male, South Bimini, June (Cazier and C. and P. Vaurie).

Macromischa pastinifera Emery

Macromischa pastinifera EMERY, 1894, Bull. Soc. Ent. Italiana, vol. 26, p. 164, pl. 1, fig. 18 (worker, Bahama Islands; types presumably in the Public Museum of Natural History, Genoa, Italy).

Macromischa pastinifera var. *opacipes* WHEELER, 1905, Bull. Amer. Mus. Nat. Hist., vol. 21, p. 96, fig. 1 (worker, key in Crawl Creek, western Andros Island, Bahamas; types in the American Museum of Natural History). New synonymy.

In the United States National Museum there is a worker labeled “type” from “Water Cay, Bahama Islands, Wickham.” Apparently the species was collected by H. F. Wickham and transmitted to Emery through

Theodore Pergande. This very characteristic and interesting species has been collected only in the Bahamas and Cuba. It is believed to be a soil-nesting instead of an arboreal form.

SPECIMENS EXAMINED: Sixteen workers, two females, one male, South Bimini, May-July (Cazier, Gertsch, and C. and P. Vaurie).

Macromischa species

There is a single male, which I am unable to place specifically but which appears to belong to the group formerly known as *Antillaemyrmex*, now a synonym of *Macromischa*. It seems to be most closely related to *pulchella* Emery and *terricola* Mann; the former was described from the island of St. Thomas, the latter from Cuba.

SPECIMENS EXAMINED: One male, South Bimini, June (Cazier and C. and P. Vaurie).

Rogeria species

Representatives of the genus *Rogeria* have been reported from Central and South America and the West Indies. At least a half dozen are known from the West Indies, most of them from Cuba. The collection from Bimini Island contains a very small, wingless female, which may be *curvipubens* Emery. This species was described from the island of St. Thomas and Bolivia, but it has also been recorded from the Bahamas, Cuba, and Puerto Rico. The types are presumably in the Public Museum of Natural History, Genoa, Italy. So far as I am aware, *curvipubens* is the only species of *Rogeria* that has been reported from the Bahamas (Wheeler, 1905a, p. 100).

SPECIMENS EXAMINED: One female (wingless), South Bimini, July (C. and P. Vaurie).

Wasmannia auropunctata (Roger)

Tetramorium ? *auropunctatum* ROGER, 1863, Berliner Ent. Zeitschr., vol. 7, pp. 182-184 (worker, female, male, Cuba; types presumably in the Zoological Museum of the University of Berlin, Berlin, Germany, and the Juan Gundlach collection in the Institute of Secondary Education, Havana, Cuba).

Hercynia panamana J. ENZMANN, 1947, Jour. New York Ent. Soc., vol. 55, pp. 44-45, pl. 5 (worker, female, near volcano Chiriqui on the west coast of Panama; types presumably in Enzmann's collection).

Wheeler (1913, p. 486) states that the types were collected by Gundlach at Mata near Baracoa in Oriente province and that the Gundlach collection contains a female and three worker cotypes (no. 321). *Wasmannia auropunctata* is widely distributed throughout the West Indies and Central and South America. It also occurs in Florida, where it is believed

to have been introduced. The ant is known as "satanica" in Cuba and as the "albayaide" in Puerto Rico. Its vicious stinging habits are well known. It is a common attendant on honeydew-excreting insects.

SPECIMENS EXAMINED: Ninety-seven workers, 59 females, nine males, South Bimini, May–August (Cazier, Gertsch, and C. and P. Vaurie).

Paracryptocerus (Cyathomymex) varians (F. Smith)

Cryptocerus varians F. SMITH, 1876, Trans. Ent. Soc. London, p. 606, pl. 11, fig. 4 [worker, Cuba; types presumably in the British Museum (Natural History), London, England].

All the various castes of this ant are described and figured by Wheeler (1905a, pp. 102–104, pl. 7, figs. 1–6). M. R. Smith (1947, pp. 30–33) also fully describes the various castes of *variens* and gives its known distribution. Colonies nest in twigs or stems of such plants as *Uniola*, *Cladium*, *Tillandsia*, *Rhizophora mangle* Linnaeus, and *Coccolobis uvifera* Linnaeus.

The species has been recorded from the Bahamas, Cuba, Honduras, and southern Florida (Miami to Key West).

SPECIMENS EXAMINED: Seventeen workers, one soldier, one female, South Bimini, May–August (Cazier, Gertsch, Rindge, and C. and P. Vaurie).

Strumigenys (Pyramica) gundlachi (Roger)

Pyramica gundlachi ROGER, 1862, Berliner Ent. Zeitschr., vol. 6, pp. 253–254, pl. 1, fig. 18b [worker (not female), Cuba; types presumably in the Zoological Museum of the University of Berlin, Berlin, Germany, and the Juan Gundlach collection in the Institute of Secondary Education, Havana, Cuba].

Wheeler, who saw the Gundlach collection, said (1913, p. 496): "Gundlach found this species under dead bark at Cogimar or in the vicinity of Cardenas. This ambiguity is due to the fact that two species were described by Roger under this name. The single worker specimen (no. 135) in the Gundlach collection is a cotype of the true *gundlachi*." The female, of the mixed series that Roger had, later proved to be *Strumigenys rogeri* Emery. So far as I am aware *gundlachi* has been recorded only from Cuba, the Bahamas, Trinidad, and Panama. Weber (1952, p. 5) says that it is one of the commonest and most versatile dacetine ants in Trinidad. He even found it in a dark cave, 200 meters from the entrance. *Gundlachi* closely resembles *eggersi* Emery and might easily be mistaken for it.

SPECIMENS EXAMINED: Twenty-five workers, South Bimini, June–August (Cazier and C. and P. Vaurie).

Smithistruma nigrescens (Wheeler)

Strumigenys alberti var. *nigrescens* WHEELER, 1911, Bull. Amer. Mus. Nat. Hist., vol. 30, p. 28 [worker, Mandeville, Jamaica (A. E. Wight); types in the American Museum of Natural History].

In a forthcoming revision of the tribe Dacetini, W. L. Brown has not only recorded *nigrescens* as a distinct species but has removed it from the genus *Strumigenys* and transferred it to the genus *Smithistruma*. I am following him in these placements. In the United States National Museum and the personal collection of W. M. Mann there are specimens from Cuba, Costa Rica, and Haiti determined as *nigrescens* by Brown.

SPECIMENS EXAMINED: Two workers, South Bimini, May (Cazier, Gertsch).

Trachymyrmex jamaicensis (André)

Atta (*Acromyrmex*) *jamaicensis* ANDRÉ, 1893, Rev. Ent. France, vol. 12, pp. 149–150 (worker, Jamaica; types presumably in the National Museum of Natural History, Paris).

Atta (*Trachymyrmex*) *maritima* WHEELER, 1905, Bull. Amer. Mus. Nat. Hist., vol. 21, pp. 107–109, pl. 7, figs. 7, 8 (worker, Andros and New Providence Islands, Bahamas; types in the American Museum of Natural History).

Trachymyrmex sharpii FOREL, 1893, Trans. Ent. Soc. London, pt. 4, pp. 372–373 [worker, island of St. Vincent, Antilles (H. H. Smith); types presumably in the Museum of Natural History, Geneva, Switzerland].

This highly variable species of fungus-growing ant is widely distributed throughout the West Indies. Colonies have also been found by William F. Buren in the littoral zone of the beach at Dania, Florida. In the latter case they may have been introduced, as no individuals have been found elsewhere in the state. The form, supposed to be typical, has been recorded from Jamaica, St. Vincent, Haiti, Culebra Island (Puerto Rico), and the Bahamas.

SPECIMENS EXAMINED: Three workers, South Bimini, August (C. and P. Vaurie).

Dorymyrmex pyramicus (Roger)

Prenolepis pyramica ROGER, 1863, Berliner Ent. Zeitschr., vol. 7, pp. 160–161 (worker, Bahia, Brazil; types presumably in the Zoological Museum of the University of Berlin, Berlin, Germany).

? *Formica insana* BUCKLEY, 1866, Proc. Ent. Soc. Philadelphia, vol. 6, p. 165 (worker, female, Texas; types presumably not in existence; see remarks below).

This species has been recorded from South America to as far north as New York and Idaho. It has been found in the West Indies and the Galapagos Islands. McCook (1879, pp. 185–186) is the authority for the statement that two of Buckley's types of *insana* are in the collection

of the American Entomological Society, Academy of Natural Sciences of Philadelphia, but none of the American formicologists including Wheeler seems to have been aware of their existence.

SPECIMENS EXAMINED: Fifteen workers, nine females, 19 males, South Bimini, May, June, and August (Cazier, Gertsch, and C. and P. Vaurie).

Tapinoma litorale Wheeler

Tapinoma litorale WHEELER, 1905, Bull. Amer. Mus. Nat. Hist., vol. 21, pp. 109-110 (worker, female, male, Bahama Islands; types in the Museum of Comparative Zoölogy and the American Museum of Natural History).

In the West Indies *T. litorale* has also been recorded from the Republic of Dominica, Puerto Rico, and Cuba. In the United States it is known from southern Florida; in fact, Wheeler reported it from Card's Point, Florida, in connection with his original description.

SPECIMENS EXAMINED: One worker, 10 males, South Bimini, May-August (Cazier, Gertsch, and C. and P. Vaurie).

Tapinoma melanocephalum (Fabricius)

Formica melanocephala FABRICIUS, 1793, Entomologia systematica, vol. 2, p. 353 (worker, Cayenne, French Guiana; existence or location of types not known).

Formica nana JERDON, 1851, Madras Jour. Lit. Sci., vol. 17, p. 125 [worker, southern India (?); existence or location of types not known].

Myrmica pellucida F. SMITH, 1857, Jour. Proc. Linnean Soc. London, Zool., vol. 2, p. 71 [worker, Singapore; types presumably in the British Museum (Natural History), London, England].

Formica familiaris F. SMITH, 1861, Jour. Proc. Linnean Soc. London, Zool., vol. 5, p. 96 [worker, Batjan ("Bachian"); types presumably in the British Museum (Natural History), London, England].

Wheeler (1919, p. 100) is the authority for the statement that Cayenne, French Guiana, is the type locality. This tropicopolitan species is widely distributed throughout the West Indies and also occurs in southern Florida. As it is commonly transported in commercial shipments, especially of plants, it is often uncertain whether in a given region it is native or introduced. This is a common house-infesting form. In Cuba, it is known as "hormiga boticaria" and in Puerto Rico as "albaricoque"; both names refer to its peculiar odor.

SPECIMENS EXAMINED: One male, South Bimini, July (C. and P. Vaurie).

Myrmelachista (*Myrmelachista*) species

Myrmelachista, in the restricted sense, has been recorded only from Mexico south to South America and into the West Indies. At least nine

forms have been found in the West Indies, their range being from the island of St. Vincent to Cuba. I have not been able to place specifically the female listed below. So far as I am aware it is the first form of *Myrmelachista* that has been reported from the Bahama Islands.

SPECIMENS EXAMINED: One female, South Bimini, July (C. and P. Vaurie).

Brachymyrmex heeri var. *obscurior* Forel

Brachymyrmex heeri var. *obscurior* FOREL, 1893, Trans. Ent. Soc. London, pp. 345-346 (worker, female, male, island of St. Vincent; types presumably in the Museum of Natural History, Geneva, Switzerland).

This form has been recorded from numerous localities in the West Indies, including the Bahamas and Cuba, and also from Mexico and Central America. Although reported from Florida, it is thought to have been introduced there.

SPECIMENS EXAMINED: Nineteen workers, 10 males, South Bimini, May-August (Cazier, Gertsch, and C. and P. Vaurie).

Brachymyrmex minutus Forel

Brachymyrmex minutus FOREL, 1893, Trans. Ent. Soc. London, pp. 346-347 (worker, female, islands of St. Vincent and St. Thomas; types presumably in the Museum of Natural History, Geneva, Switzerland).

It appears that this form is known only from the West Indies, where in addition to the original localities it has also been recorded from Cuba, the Bahamas, and Jamaica.

SPECIMENS EXAMINED: Twenty-one workers, 10 females, South Bimini, April-July (Cazier, Gertsch, Mayr, and C. and P. Vaurie).

Camponotus (Tanaemyrmex) bermudezi Aguayo

Camponotus (Tanaemyrmex) bermudezi AGUAYO, 1932, Bull. Brooklyn Ent. Soc., vol. 27, pp. 225-226 [worker, Caibarien, Cuba (P. J. Bermúdez); types in the Museum of Comparative Zoölogy, Cambridge, Massachusetts, and in the collection of Aguayo].

Apparently *bermudezi* was previously known only from the type specimens from Cuba. W. L. Brown, who compared the Bimini Island specimens with the types, stated that the Bimini specimens were smaller and had a darker head, mesonotum, metanotum, and propodeum but were otherwise similar. Nothing is known about the biology of *bermudezi*.

SPECIMENS EXAMINED: Four workers, South Bimini, May (Cazier, Gertsch).

Camponotus (Tanaemyrmex) lucayanus Wheeler

Camponotus maculatus lucayanus WHEELER, 1905, Bull. Amer. Mus. Nat. Hist., vol. 21, pp. 112–114 (worker, female, Andros and New Providence Islands, Bahamas; types in the American Museum of Natural History).

This species, although unusually common on some of the Bahama Islands, has not been recorded from elsewhere. Wheeler (1905a, p. 113) found colonies nesting in and under old palmetto logs and stumps on Andros and New Providence Islands. He is of the opinion that *lucayanus* is closely related to *tortuganus* Emery of southern Florida but differs from *tortuganus* in having erect hairs on the cheeks and antennal scapes of the worker and also in the much larger head of the major worker.

SPECIMENS EXAMINED: Sixty-eight workers, seven females, 53 males, South Bimini, May–August (Cazier, Gertsch, Rindge, and C. and P. Vaurie); five males, North Bimini, July and September (collectors not indicated).

Camponotus (Tanaemyrmex) ramulorum Wheeler

Camponotus inaequalis var. *ramulorum* WHEELER, 1905, Bull. Amer. Mus. Nat. Hist., vol. 21, pp. 114–116, figs. S, T, U (worker, female, male, Andros and New Providence Islands, Bahamas; types in the Museum of Comparative Zoölogy, Cambridge, Massachusetts, and the American Museum of Natural History).

This ant has been reported only from the Bahamas and Cuba. Wheeler found *ramulorum* the most abundant species of *Camponotus* on Andros and New Providence Islands. He states that it is a nocturnal form which nests in hollow twigs of trees and bushes or between the leaves of tillandsias.

SPECIMENS EXAMINED: Six workers, eight females, seven males, South Bimini, May–August (Cazier, Gertsch, Rindge, and C. and P. Vaurie).

Camponotus (Colobopsis) culmicola Wheeler

Camponotus (Colobopsis) culmicola WHEELER, 1905, Bull. Amer. Mus. Nat. Hist., vol. 21, pp. 117–119, pl. 7, figs. 10, 11 (worker, soldier, female, male, Andros and New Providence Islands, Bahamas; types in the Museum of Comparative Zoölogy, Cambridge, Massachusetts, and the American Museum of Natural History).

Wheeler found the type specimens nesting in the hollow culms of *Cladium jamaicense* along the damp edges of the "swashes." This form may prove to be a synonym of *impressus* Roger or at best only a subspecies of that form. At present *culmicola* is known only from the Bahamas.

SPECIMENS EXAMINED: Three females, five males, South Bimini,

May–July (Cazier, Gertsch, and C. and P. Vaurie); one male, North Bimini, June (Cazier, Rindge).

Camponotus species

Under this heading are included a number of minor workers, females, and a male which I cannot place specifically. There appear to be at least two forms in the lot.

SPECIMENS EXAMINED: Ten workers, five females, one male, South Bimini, May–August (Cazier, Gertsch, C. and P. Vaurie).

Paratrechina longicornis (Latreille)

Formica longicornis LATREILLE, 1802, Histoire naturelle des fourmis, p. 113 [worker, Senegal (coll. Bosc); existence or location of types not known].

Formica vagans JERDON, 1851, Madras Jour. Lit. Sci., vol. 17, p. 124 [worker, female, southern India (?); existence or location of types not known].

Formica (Tapinoma) gracilescens NYLANDER, 1856, Ann. Sci. Nat. Zool., ser. 4, vol. 5, p. 73, pl. 3, fig. 20 (worker, Botanical Gardens in Paris; types presumably in the Zoological Museum at the University of Helsinki, Finland).

Paratrechina currens MOTSCHOUJSKY, 1863, Bull. Soc. Nat. Moscou, vol. 36, p. 14 (worker, Ceylon; types presumably in the Zoological University Museum of Moscow, U.S.S.R.).

The crazy ant or “hormiga loca” is so called because of its habit of running rapidly and changing its direction every few moments. This tropicopolitan species has been widely distributed over the world by commerce. Its original home is thought to be India. *Paratrechina longicornis* is widely distributed throughout the West Indies and also occurs in numerous localities in the United States but is especially common in Florida. Wherever found the form is a potential house pest.

SPECIMENS EXAMINED: Three workers, four males, South Bimini, July–August (C. and P. Vaurie).

Paratrechina (Nylanderia) bourbonica (Forel)

Prenolepis nodifera bourbonica FOREL, 1886, Ann. Soc. Ent. Belgique, vol. 30, pp. 210–211 [worker, female, male, St. Denis, island of Reunion (C. Keller); types presumably in the Museum of Natural History, Geneva, Switzerland].

The original home of this ant is not known, but it may be in the Ethiopian or Oriental regions as its known distribution includes British East Africa, the Seychelles, India, Guam, Nicobar, and Pemba. It appears that neither *bourbonica* nor any of its forms has been previously reported from the West Indies, but an undetermined variant has been listed from Florida. The male is very easily recognized by its very characteristic genital appendages. These are figured by Forel (1891, pl. 3, figs. 2, 2a, 2b).

SPECIMENS EXAMINED: Two males, South Bimini, June, August (C. and P. Vaurie).

Paratrechina (Nylanderia) guatemalensis (Forel)

Prenolepis vividula var. *guatemalensis* FOREL, 1884, Bull. Soc. Vaudoise Sci. Nat., ser. 2, vol. 20, p. 348 [worker, Retaluleu, Guatemala (Stoll)]; types presumably in the Museum of Natural History, Geneva, Switzerland].

There are only a few records to indicate the distribution of *P. guatemalensis*, the species having been listed only from Arizona and British Honduras. Its subspecies, *antillana*, is widely distributed throughout the West Indies from Granada through St. Vincent and Cuba to Andros and New Providence Islands in the Bahamas. Like *bourbonica*, *guatemalensis* can best be recognized by the shape of the genital appendages of the male. These are figured by Wheeler (1905b, fig. 4). I am indebted to Dr. W. L. Brown for the determinations of both *bourbonica* and *guatemalensis*.

SPECIMENS EXAMINED: Twenty males, South Bimini, May, July, August (Cazier, Gertsch, and C. and P. Vaurie).

Paratrechina (Nylanderia) species

The specimens examined may include more than one species of *Paratrechina (Nylanderia)*, which I am unable to place specifically because of the poor characters possessed by the workers.

SPECIMENS EXAMINED: Fifty-nine workers, one female, South Bimini, April–August (Cazier, Gertsch, Mayr, and C. and P. Vaurie).

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